MARCH/APRIL 1990 ISSUE # 29

VZ 200/300

HUNTER VALLEY VZ JOURNAL

RS-232 SERIAL PORT FOR VZ 200/300 COMPUTERS

TALK TO THE WORLD OR ANOTHER COMPUTER

PRODUCED BI-MONTHLY BY H.V.VZ.U.G.

THE CIRCUIT DIAGRAMS WERE DONE WITH A CAD (COMPUTER AIDED DESIGN) PROGRAM ON AN IBM PC COMPATIBLE COMPUTER. THE TEXT WAS COMPILED USING DISK WORD PROCESSOR PATCH 3.3 AND HI-RES SCREEN DUMPS WITH LARRY TAYLOR'S PRINTER PATCH V1.4.

*** NEWCASTLE COMPUTER SHOW ***

THE ANNUAL NEWCASTLE COMPUTER SHOW WILL BE HELD SEPTEMBER 20-22. I'VE RECEIVED A COUPLE EXELLENT DEMONSTRATION PROGRAMS SO FAR AND WE STILL NEED MORE IN WAY OF NEW HI-RES SCREENS, MUSIC DEMOS, ETC. ALL HELP WELCOME AND VERY MUCH APPRECIATED. ED.

BELIEVE IT OR NOT . . .

EARLY THIS YEAR I VISITED BOTH VICTORIA AND QUEENSLAND AND NOW AT LONG LAST I UNDERSTAND WHY THEY CALL NEW SOUTH WALES THE PREMIER STATE.

APOLOGIES - - -

AS A RESULT OF MY CONTINUING MEDICAL AND PERSONAL PROBLEMS I'VE SLOWED DOWN SOMEWHAT AND I'M WAY BEHIND IN JOURNAL PRODUCTION. I WANT TO ASSURE OUR SUBSCRIBERS THAT I HAVE NO PLANS TO CEASE PRODUCTION OF THE JOURNAL AND IN DUE COURSE ITS PRODUCTION WILL CATCH UP.

LATE IN JUNE I FINISHED A 10 WEEK COMPUTER OFFICE APPLICATION COURSE USING AN IBM PC COMPATIBLE WITH A FINAL MARK OF 97%. IT WAS HARD GOING, BUT THE RESULTS WERE WELL WORTH THE EFFORT AND BEING ABLE TO STUDY AT HOME WAS A VERY BIG HELP IN ACHIEVING ABOVE RESULTS.

VZ DISK MAGAZINE - $20.00 PER ANUM

JASON OAKLEY WISHES TO ADVISE EVERYONE THAT HE HAS LOWERED THE SUBSCRIPTION COST FOR ONE YEAR TO $20.00 WHICH MAKES IT MUCH BETTER VALUE FOR THE MONEY.

*** NEW - FOR SALE - NEW ***

BOOKS - VPROGRAMMEZ-VZ-VZ - $10.50 EA.
SURFACE POSTAGE IN AUSTRALIA AN NEW ZEALAND IS INCLUDED IN PRICE
THIS IS MY OWN SPECIAL BOOK FOR BEGINNERS AND ADVANCED VZERS.

BEGINNER'S GUDE TO THE VZ200/300 EDITOR ASSEMBLER
BY PETER SCHAPER - NEW - $20.00 EACH

THIS BOOK EXPLAINS IN SIMPLE LANGUAGE HOW TO USE THE DICK SMITH EDITOR ASSEMBLER UNIT. THE LITTLE INSTRUCTION BOOKLET THAT COMES WITH THE TAPE IS NOT VERY EASY TO UNDERSTAND TO MANY FOLK. PETER USES SOME SHORT M/L ROUTINES TO EXPLAIN THE USE OF THE ED/ASS BUT HE DOES NOT TEACH YOU M/L AS SUCH.

AS I MENTIONED PREVIOUSLY IN LE'VZ, THE BOOK WILL BE PRINTED AND PUT TOGETHER WHEN ORDERED. I DO THIS AS SOON AS POSSIBLE, BUT THERE WILL BE A DELAY. THERE ARE FIFTY EIGHT PAGES OF A4 SIZE SO IT IS GOOD VALUE FOR MONEY.

CONTACT: MR JOHN D'ALTON 39 AGNES STREET TOOWONG QLD 4066
PHONE - (07) 371 3707

FOR SALE - - -

1 OFF VZ200 & AQUARIUS DATASSETTE - $50.00 PLUS $5.00 POST AND PACKING.
1 OFF VZ200, VZ DATASSETTE, VZ200 16K MEMORY EXPANSION & PRINTER INTERFACE - $100.00 PLUS $15.00 POST AND PACKING.

ON BEHALF OF ALEX TAYLOR CONTACT:
JOE LEON 22 DRURY STREET WALLSEND 2287 (049) 51 2756

FOR SALE - - -

1 OFF ORIGINAL VZ 300 GAMES DISK # 4 - $15.00
(INCLUDES DUEL, VZ CHESS, HAMBURGER SAM AND LUNAR LANDER)

1 OFF DOT MATRIX PRINTER PATCH V1.4 (DISK) BY LARRY TAYLOR - $8.00
(ALLOWS HI-RES SCREEN DUMPS, GRAPHICS AND INVERSE PRINTOUT)

CONTACT JOE LEON 22 DRURY STREET WALLSEND 2287 (049) 51 2756

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2 '*****************************************************************
4 '*   RAM RESIDENT EXTENDED BASIC FOR VZ 200/300 COMPUTERS      *
6 '*****************************************************************
8 '
10 'WHEN RUN, THIS PROGRAM WILL COPY FROM ROM TO RAM (AT TOP OF
20 'MEMORY) THE WORD TABLE, MOST OF THE LIST ROUTINE AND THE
30 'INPTT SCAN TOKENISER ROUTINE, AND MAKE MODIFICATIONS THAT
40 'WILL FORCE YOUR VZ TO USE THE  RAM WORD TABLE FOR LIST,
50 'LLIST AND KEYBOARD ENTRY OF DIRECT COMMANDS AND BASIC LINES.
60 'A LIST WILL DISPLAY OF ALL THE EXTRA BASIC WORDS THAT HAVE
70 'BEEN RESTORED TO THE VZ WORD TABLE.
80 'WHEN THE PROGRAM STOPS RUNNING YOU CAN NEW YOUR VZ AND ENTER
90 'PROGRAMS THAT MAKE USE OF THESE NEW BASIC WORDS, OR USE THEM
100 'AS DIRECT COMMANDS, USING CORRECT SYNTAX AS PER THE TRS-80
110 'COMPUTER.
115 'RAMBASIC CAN BE USED ALONE AS AN EXTENDED BASIC,
120 'OR IT CAN BE APPENDED TO SUITE2: SIMPLY LOAD YOUR COPY
130 'OF SUITE2 AND TYPE IN THE LINES OF RAMBASIC, BUT
140 'DO NOT ENTER ANY OF THE REM LINES (') IN THIS PROGRAM WITH
150 'LINE NUMBERS LESS THAN 200.
160 'SUITE2 WITH RAMBASIC APPENDED TO IT SHOULD THEN BE SAVED
170 'AS SUITE3.
180 'RUNNING SUITE3 WILL GIVE YOU ACCESS TO ALL THE FACILITIES
190 'OF SUITE2 AND THE EXTENDED BASIC OF RAMBASIC.
198 '
599 'LOWER TOP OF MEMORY ******************************************
600 A=(PEEK(30897)+PEEK(30898)*256)-999::B%=A/256:C%=A-B%*256
610 POKE30897,C%:POKE30898,B%:CLEAR50
620 A=PEEK(30897)+PEEK(30898)*256+1:E=65536
629 'SET UP LDIR COPY ROUTINE **************************************
630 FORR=29184TOR+11:READC%:B=B+C%:POKER,C%:NEXT
640 B%=A/256:C%=A-B%*256:POKE29188,C%:POKE29189,B%
649 'COPY WORD TABLE TO RAM: A TO A+465 *************************
650 POKE30862,0:POKE30863,114:D=USR(0)
659 'MODIFY RAM WORD TABLE ****************************************
660 FORR=1TO19:B%=1:READB:READA$:PRINTA$,
670 FORC%=A+B-ETOC%+LEN(A$)-1:POKEC%,ASC(MID$(A$,B%,1)):B%=B%+1
680 NEXT:NEXT
689 'MAIN LIST: A+466 TO A+612 ***********************************
690 D=A+466:B%=D/256:C%=D-B%*256:POKE29188,C%:POKE29189,B%
700 POKE29185,51:POKE29186,43:POKE29191,147:POKE29192,0:D=USR(0)
709 'LIST SUBROUTINE: A+613 TO A+639 ****************************
710 D=A+613:B%=D/256:C%=D-B%*256:POKE29188,C%:POKE29189,B%
720 POKE29185,157:POKE29186,46:POKE29191,27:D=USR(0)
729 'SERVICE ROUTINE FOR DOS EXIT: A+640 TO A+653 **************
730 FORR=A+640-ETOA+653-E:READB:POKER,B:NEXT:B%=(A+640)/256
740 C%=(A+640)-B%*256:POKE31199,195:POKE31200,C%:POKE31201,B%
749 'MODIFYING LIST ********************************************
750 FORR=1TO11:READB:READC%:B%=(A+C%)/256:C%=(A+C%)-B%*256
760 POKEA+B-E,C%:POKEA+B+1-E,B%:NEXT
770 POKEA+483-E,0:POKEA+484-E,0:POKEA+485-E,0
779 'INPUT SCAN JUMP VECTOR ROUTINE: A+654 TO A+675 ***********
780 FORR=A+654TOA+675:READB:POKER-E,B:NEXT
790 B%=(A+676)/256:C%=(A+676)-B%*256
800 POKEA+668-E,C%:POKEA+669-E,B%
809 'INPUT SCAN: A+676 TO A+704 *********************************
810 D=A+676:B%=D/256:C%=D-B%*256:POKE29188,C%:POKE29189,B%
820 POKE29185,130:POKE29186,26:POKE29191,26:POKE29192,0:D=USR(0)
830 D=A+705:B%=D/256:C%=D-B%*256:POKEA+700-E,C%:POKEA+701-E,B%
840 POKEA+702-E,195:POKEA+703-E,156:POKEA+704-E,26
```

RAMBASIC CONTINUED

```
849 'INPUT SCAN TOKENISER: A+705 TO A+912 **************************
850 POKE29188,C%:POKE29189,B%:POKE29185,192
860 POKE29186,27:POKE29191,208:POKE29192,0:D=USR(0)
869 'MODIFYING INPUT SCAN TOKENISER ******************************
870 FORR=1TO11:READB:READC%:B%=(A+C%)/256:C%=(A+C%)-B%*256
880 POKEA+B-E,C%:POKEA+B+1-E,B%:NEXT
889 'INITIALISE JUMP VECTOR ***********************************
890 B%=(A+654)/256:C%=(A+654)-B%*256
900 POKE29184,C%:POKE29185,B%:POKE29186,42:POKE29187,0
910 POKE29188,114:POKE29189,34:POKE29190,4:POKE29191,120
920 POKE29192,201:POKE30862,2:B=USR(0)
930 POKE30862,74:POKE30863,30
998 '
999 'LDIR ****************************************************
1000 DATA33,80,22,17,0,0,1,210,1,237,176,201
1009 'WORDS: FIRST CHARACTER OF EACH WORD IS INVERSE ***********
1010 DATA20,"RANDOM",102,"DEFINT",108,"DEFSNG",114,"DEFDBL",133
1020 DATA"RESUME",142,"ON",230,"DELETE",236,"AUTO",271,"VARPTR"
1030 DATA280,"ERL",283,"ERR",286,"STRING$",308,"MEM",350,"FRE"
1040 DATA356,"POS",417,"CINT",421,"CSNG",425,"CDBL",429,"FIX"
1049 'LIST & TERMINAL INPUT DOS EXIT SERVICE ROUTINE ***********
1050 DATA8,241,254,43,32,4,8,195,0,0,8,195,123,34
1059 'LIST MODIFICATIONS DATA **********************************
1060 DATA519,541,525,532,561,613,585,0,591,587,608,598,616,635
1070 DATA620,552,623,563,633,552,648,486
1079 'INPUT SCAN VECTOR ROUTINE ********************************
1080 DATA217,8,225,124,254,26,32,8,125,254,130,32,3,33,0,0,229,8
1090 DATA217,195,147,66
1099 'TOKENISER MODIFICATIONS DATA *****************************
1100 DATA721,860,727,888,731,894,739,860,746,860,756,860,786,783
1110 DATA802,826,878,717,760,-1,764,830
```

DISK DRIVE HINTS & TIPS

HINT 1 – DRIVE HEAD BANGING

SINGLE DRIVE USERS IF YOU WANT TO STOP YOUR DRIVE BANGING AT POWER UP OR RESET THEN PLUG LEAD FROM DRIVE INTO DRIVE 2 SOCKET ON DISK CONTROLLER AND IT WILL BANG NO MORE. DON'T FORGET TO TYPE IN DRIVE 2 OR ACTIVATE IT FROM WITHIN SOFTWARE. ROBERT QUINN.

HINT 2 – HEAD PRESSURE PAD PROBLEMS

IF FOR SOME REASON YOU HAVE TROUBLE INSERTING DISK IN DRIVE, NEVER USE FORCE OR DAMAGE CAN RESULT. THE SAME GOES IF YOU'RE REMOVING DISK AND IT WON'T COME OUT. IF YOU FORCE IT IN OR OUT THEN YOU COULD DAMAGE OR TEAR OFF FELT PRESSURE PAD RENDERING DRIVE USELESS. TAKE DRIVE COVER OFF AND FREE DISK GENTLY AS FELT PRESSURE PADS ARE EXTREMELY DIFFICULT TO BUY.

HINT 3 – INPUT/OUTPUT ERRORS

ERRATIC DRIVE BEHAVIOUR AND INPUT/OUTPUT ERRORS CAN OCCUR IF DRIVE/S IS/ARE TOO CLOSE TO TV SET'S OR MONITOR'S MAGNETIC FIELD OR LARGE METAL OBJECTS. ANOTHER PROBLEM AREA IS IF DRIVE, POWER OR OTHER LEADS CROSS EACH OTHER CAUSING SIGNAL ITERFERENCE. PARRALLEL LEADS NO PROBLEM. PETER HICKMAN.

```
;
;SOURCE:MOVE
;ORIGIN:0BC00H
;OBJECT:MOVEUP
;
;SCREEN REPLACEMENT SUBS.
;  BY BOB KITCH.
;    25/APR./89
;
;
;
;
VRAM EQU  7000H
;START OF VIDEO SCREEN.
SSCN EQU  0B200H
;START OF SCREEN BUFFER.
SZSC EQU  0800H
;SIZE OF SCREEN.
HSZC EQU  0400H
;HALF SIZE SCREEN.
ESCN EQU  SSCN+SZSC
;END OF SCREEN BUFFER + 1.
LLEN EQU  20H
;LINE LENGTH IN BYTES.
NLIN EQU  40H
;NUMBER OF LINES.
BIG  EQU  0FFFFH+1
;EQ. TO 65536D.
ZERO EQU  00H
;ZERO FOR OFFSETS.
SBF1 EQU  0C000H
;START OF PICTURE BUFFERS.
SBF2 EQU  SBF1+SZSC
SBF3 EQU  SBF2+SZSC
SBF4 EQU  SBF3+SZSC
SBF5 EQU  SBF4+SZSC
SBF6 EQU  SBF5+SZSC
SBF7 EQU  SBF6+SZSC
SBF8 EQU  SBF7+SZSC
DLAY EQU  4038H
;DELAY ROUTINE IN DOS.
DURD EQU  22H
;DELAY DURATION IN MSEC.
TURN EQU  0C9H
;OPCODE FOR RETURN.
JMP  EQU  0C3H
;OPCODE FOR JUMP.
IVEC EQU  787DH
;3 BYTE INTERRUPT VECTOR.
;
;
;JUMP TABLE FOR 9 PIC MOVES.
STRT JP   SC0
     JP   SC1
     JP   SC2
     JP   SC3
     JP   SC4
     JP   SC5
     JP   SC6
     JP   SC7
     JP   SC8
;
;
;SCREEN 0 - SPLAT.
SC0  CALL SAVR
;SAVE REGISTERS.
     LD   HL,SBF1
;SOURCE - START OF BUFFER.
     LD   DE,SSCN
;DEST - START OF SCREEN.
     LD   BC,SZSC
;SIZE - SCREEN FULL.
     LDIR
;MOVE IT.
     CALL DPLY
;DISPLAY AND PAUSE.
     CALL RESR
;RESTORE REGISTERS.
     RET
;FINISH
;
;
;SAVE REGISTERS AND DISABLE
;INTERRUPTS FOR CALCULATIONS
;AND MOVES.
SAVR DI
     EX   (SP),HL
;PUT RET ADDR INTO HL & SAVE
;HL - DOESN'T CHANGE SP.
     PUSH DE
     PUSH BC
     PUSH AF
     PUSH HL
;PUT RET ADDR. ON TOP.
;
;
;RESET HL TO ENTRY VALUE.
     LD   HL,11
;2 TIMES NO. OF REGS. + 3
     ADD  HL,SP
;POINT TO H-VALUE IN STACK.
     PUSH AF
;SAVE AF REG.
     LD   A,(HL)
;AND PUT IN A REG.
     DEC  HL
;NOW POINT TO L-VALUE.
     LD   L,(HL)
;AND PUT IN L REG.
     LD   H,A
;MOVE H-VALUE.
     POP  AF
;RESTORE AF REG.
     RET
;
;
;RESTORE REGISTERS AND
;ENABLE INTERRUPTS FOR
;RETURN TO BASIC.
RESR POP  HL
;GET RET ADDR.
     POP  AF
     POP  BC
     POP  DE
```

```
        EX    (SP),HL
;RESTORE HL & PUT RET ADDR.
;ON STACK.
        EI
        RET
;
;
;SCREEN 1 - OPEN-UP.
;USE STACK TO STORE UPPER
;HALF POINTERS.
;USE IX AND IY REGS. TO
;STORE LOWER HALF POINTERS.
SC1   CALL SAVR
;SAVE REGISTERS.
        PUSH IX
        PUSH IY
        LD    HL,SBF1+HSZC
;PT. TO START OF LOWER-HALF.
        LD    DE,SSCN+HSZC
;PT. TO CORRESPONDING DEST.
        PUSH HL
;PUT SOURCE HL INTO IX.
        POP   IX
        PUSH DE
;PUT DEST. DE INTO IY.
        POP   IY
        DEC   HL
;PT. TO END OF UPPER-HALF.
        DEC   DE
;PT. TO CORRESPONDING DEST.
        LD    B,20H
;HALF NO. OF SCREEN LINES.
NLN1  PUSH BC
;SAVE LINE COUNTER.
        LD    BC,LLEN
;SIZE - 1 LINE.
        LDDR
;MOVE IT - UPPER HALF LINE.
        PUSH HL
;SAVE PTR. ON STACK.
        PUSH DE
;SAVE PTR. ON STACK.
        PUSH IX
;RESTORE LOWER HALF SOURCE.
        POP   HL
        PUSH IY
;RESTORE LOWER HALF DEST.
        POP   DE
        LD    BC,LLEN
;SIZE - 1 LINE.
        LDIR
;MOVE IT - LOWER HALF LINE.
        PUSH HL
        POP   IX
;PUT SOURCE HL INTO IX.
        PUSH DE
        POP   IY
;PUT DEST. DE INTO IY.
        CALL DPLY
;DISPLAY AND PAUSE.
        POP   DE
;RESTORE UPPER HALF PTRS.
        POP   HL
        POP   BC
;RESTORE LINE COUNTER.
        DJNZ NLN1
;WHOLE SCREEN MOVED?
        POP   IY
        POP   IX
        CALL RESR
;RESTORE REGS.
        RET
;FINISH.
;
;
;SCREEN 2 - ROLL DOWN.
;NOTE THAT SCREENS 2 AND 3
;ARE INTERCHANGED IN
;DISPLAY SEQUENCE.
SC2   CALL SAVR
;SAVE REGS.
        LD    HL,SBF3
;SOURCE.
        LD    DE,SSCN
;DESTINATION.
        LD    B,NLIN
;LINE COUNTER.
NLN2  PUSH BC
;SAVE LINE COUNTER.
        LD    BC,LLEN
;SIZE - ONE FULL LINE.
        LDIR
;MOVE IT.
        CALL DPLY
;DISPLAY AND PAUSE.
        POP   BC
;RESTORE LINE COUNTER.
        DJNZ NLN2
;SCREEN FULL?
        CALL RESR
;RESTORE REGS.
        RET
;FINISH
;
;
;SCREEN 3 - PUSH DOWN.
SC3   CALL SAVR
;SAVE REGS.
        LD    HL,SBF4-1
;SOURCE - END OF SBF3.
        LD    B,NLIN+1
;LINE COUNTER.
NSN3  PUSH BC
;SAVE LINE COUNTER.
        LD    DE,ESCN-1
;DESTINATION - END OF SCREEN
        LD    BC,SZSC
;SIZE - SCREEN FULL.
        LDDR
;MOVE IT.
        LD    BC,SZSC-LLEN
;1 SCREEN FULL LESS 1 LINE.
        ADD   HL,BC
;RESET SOURCE ONE LINE ON.
```

```
        CALL DPLY
;DISPLAY AND PAUSE.
        POP  BC
;RESTORE LINE COUNTER.
        DJNZ NSN3
;WHOLE SCREEN MOVED?
        CALL RESR
;RESTORE REGS.
        RET
;FINISH
;
;
;SCREEN 4 - ROLL UP.
SC4     CALL SAVR
;SAVE REGS.
        LD   HL,SBF5-1
;SOURCE - END OF SBF4.
        LD   DE,ESCN-1
;DEST. - END OF SCREEN.
        LD   B,NLIN
;LINE COUNTER.
NLN4    PUSH BC
;SAVE LINE COUNTER.
        LD   BC,LLEN
;SIZE - 1 LINE.
        LDDR
;MOVE IT.
        CALL DPLY
;DISPLAY AND PAUSE.
        POP  BC
;RESTORE LINE COUNTER.
        DJNZ NLN4
;SCREEN FULL?
        CALL RESR
;RESTORE REGS.
        RET
;FINISH
;
;
;SCREEN 5 - PUSH UP.
SC5     CALL SAVR
;SAVE REGS.
        LD   HL,SBF5-1
;SOURCE - END OF SBF4.
        LD   B,NLIN+1
;LINE COUNTER.
NSN5    PUSH BC
;SAVE LINE COUNTER.
        LD   DE.ESCN-1
;DESTINATION - END OF SCREEN
        LD   BC,SZSC
;SIZE - SCREEN FULL.
        LDDR
;MOVE IT.
        LD   BC,SZSC+LLEN
;1 SCREEN FULL PLUS 1 LINE.
        ADD  HL,BC
;RESET SOURCE ONE LINE BACK.
        CALL DPLY
;DISPLAY AND PAUSE.
        POP  BC
;RESTORE LINE COUNTER.
        DJNZ NSN5
;WHOLE SCREEN MOVED?
        CALL RESR
;RESTORE REGS.
        RET
;FINISH.
;
;
;SCREEN 6 - 4 BAR ROLL DOWN.
SC6     CALL SAVR
;SAVE REGS.
        LD   HL,SBF6
;SOURCE - START OF SBF6.
        LD   DE,SSCN
;DESTINATION - START OF SCRN
        LD   B,10H
;NO. OF LINES/BAR.
NBR6    PUSH BC
;SAVE LINE COUNTER.
        LD   B,4H
;NO. OF BARS.
NLN6    PUSH BC
;SAVE BAR COUNTER.
        LD   BC,LLEN
;SIZE - 1 LINE.
        LDIR
;MOVE IT.
        LD   BC,200H-LLEN
;INC. FOR START OF NEXT BAR.
        ADD  HL,BC
;POINT TO START OF NEXT BAR.
        EX   DE,HL
;SWAP SOURCE AND DEST.
        ADD  HL,BC
;POINT TO START OF NEXT BAR.
        EX   DE,HL
;SWAP DEST AND SOURCE.
        POP  BC
;RESTORE BAR COUNTER.
        DJNZ NLN6
;4 BARS DONE?
        LD   BC,SZSC-LLEN
;DEC. FOR NEXT LINE.
        OR   A
;RESET C-FLAG.
        SBC  HL,BC
;POINT TO NEXT SOURCE LINE.
        EX   DE,HL
;SWAP SOURCE AND DEST.
        OR   A
;RESET C-FLAG.
        SBC  HL,BC
;POINT TO DEST.
        EX   DE,HL
;SWAP DEST AND SOURCE.
        CALL DPLY
;DISPLAY AND PAUSE.
        POP  BC
;RESTORE LINE COUNTER.
        DJNZ NBR6
;SCREEN FINISHED?
        CALL RESR
```

```
;RESTORE REGS.
        RET
;FINISH.
;
;
;SCREEN 7 - L TO R SWEEP.
SC7     CALL SAVR
;SAVE REGS.
        PUSH IX
        PUSH IY
        LD   IX,SBF7
;POINT TO INCOMING BYTE.
        LD   IY,SSCN
;POINT TO REPLACED BYTE.
        LD   B,LLEN
;SET COLUMN COUNTER.
NCL7    PUSH BC
;SAVE COLUMN COUNTER.
        LD   H,0FFH
;PIXEL MASK TEMPLATE.
        LD   B,4
;SET PIXEL COUNTER.
NPX7    PUSH BC
;SAVE PIXEL COUNTER.
        SRL  H
;SHIFT MASK FOR RH. PIXEL
        SRL  H
;PRESERVATION IN H-REG.
        LD   A,H
;PUT MASK INTO ACC.
        CPL
;.NOT.MASK IN ACC.
        LD   L,A
;NOT.MASK IN L-REG. FOR
;LH. PIXEL PRESERVATION.
        LD   B.NLIN
;SET LINE COUNTER.
NLN7    LD   A.(IX+ZERO)
;PUT INCOMING BYTE INTO ACC.
        AND  L
;MASK OUT RH. PIXELS.
        LD   D.A
;SAVE LH. PIXELS.
        LD   A.(IY+ZERO)
;PUT REPLACED BYTE INTO ACC.
        AND  H
;MASK OUT LH. PIXELS.
        OR   D
;LOGICAL ADD RH & LH PIXELS.
        LD   (IY+ZERO),A
;UPDATE SCREEN.
        LD   DE,LLEN
;INC. BY 1 LINE.
        ADD  IX,DE
;POINT TO NEXT LINE/INCOMING
        ADD  IY,DE
;POINT TO NEXT LINE/REPLACED
        DJNZ NLN7
;SEE IF LINES FINISHED?
        CALL DPLY
;DISPLAY AND PAUSE.
        LD   DE.BIG-SZSC
;DEC. TO RETURN TO TOP OF
;CURRENT COLUMN.
        ADD  IX,DE
;POINT TO TOP OF CURRENT COL
        ADD  IY,DE
;POINT TO TOP OF CURRENT COL
        POP  BC
;RESTORE PIXEL COUNTER.
        DJNZ NPX7
;SEE IF ALL PIXESS FINISHED?
        INC  IX
;POINT TO NEXT COLUMN.
        INC  IY
;POINT TO NEXT COLUMN.
        POP  BC
;RESTORE COLUMN COUNTER.
        DJNZ NCL7
;SEE IF COLUMNS FINISHED?
        POP  IY
        POP  IX
        CALL RESR
;RESTORE REGS.
        RET
;FINISH.
;
;
;SCREEN 8 - R TO L SWEEP.
SC8     CALL SAVR
        PUSH IX
        PUSH IY
        LD   IX,SBF8+1FH
;TOP OF R.H. COL.
        LD   IY,SSCN+1FH
;TOP OF RH. COL. ON SCREEN.
        LD   B,LLEN
NCL8    PUSH BC
        LD   H,0FFH
        LD   B,4
NPX8    PUSH BC
        SLA  H
        SLA  H
        LD   A,H
        CPL
        LD   L,A
        LD   B,NLIN
NLN8    LD   A,(IX+ZERO)
        AND  L
        LD   D,A
        LD   A,(IY+ZERO)
        AND  H
        OR   D
        LD   (IY+ZERO),A
        LD   DE,LLEN
        ADD  IX,DE
        ADD  IY,DE
        DJNZ NLN8
        CALL DPLY
        LD   DE,BIG-SZSC
        ADD  IX,DE
        ADD  IY,DE
        POP  BC
        DJNZ NPX8
```

```
        DEC   IX
        DEC   IY
        POP   BC
        DJNZ  NCL8
        POP   IY
        POP   IX
        CALL  RESR
        RET
;
;
;MOVE SCREEN BUFFER TO VRAM.
;DO IT IN TWO HALVES AS THE
;PROCEDURE IS INTERRUPT
;DRIVEN AND MUST BE
;ACCOMPLISHED IN 4.49 MSECS.
;TO AVOID FLICKER.
;1K BLOCK MOVE TAKES
;6.09 MSECS. ON 3.54MHZ Z80.
;(NEAR ENOUGH!)
;
MTOP    LD    HL,SSCN
        LD    DE,VRAM
        LD    BC,HSZC
        LDIR
;MOVE TOP HALF SCREEN BUFFER
        DI
        LD    BC,MBOT
;SWAP INTERRUPT VECTOR
;TO OTHER HALF.
        LD    (IVEC+1),BC
        EI
        RET
;
;
MBOT    LD    HL,SSCN+HSZC
        LD    DE,VRAM+HSZC
        LD    BC,HSZC
        LDIR
;MOVE BOTTOM HALF SCRN. BUF.
        DI
        LD    A,TURN
        LD    (IVEC),A
;SET INTERRUPT VECTOR TO RET
;AS BOTH HALVES ARE MOVED.
        EI
        RET
;
;
;INTERRUPT DRIVEN DISPLAY
;ROUTINE. A PAUSE IS DONE
;SO THAT THE TOP AND BOTTOM
;HALVES OF THE SCREEN CAN BE
;MOVED FROM THE SCREEN
;BUFFER TO VRAM.
;NB. BC REG. IS CHANGED BY
;THIS SUBROUTINE.
DPLY    LD    A,JMP
        LD    BC,MTOP
        LD    (IVEC+1),BC
        LD    (IVEC),A
;SETUP INTERRUPT VECTOR.
        EI
        LD    BC,DURD
;DELAY MSEC.
        CALL  DLAY
;DO A DELAY - DURING WHICH
;TIME THE VRAM IS UPDATED.
        DI
        RET
;RETURN TO MOVE ROUTINES.
END     EQU   $
```

CHANGE GRAPHICS BY BRIAN GREEVE — — —

THIS PROGRAM IS INTENDED FOR PEOPLE WHO HAVE PRINTERS WHICH DO NOT RESPOND TO THE VZ ROM PRINTER CONTROL WITH REGARD TO GRAPHICS AND INVERSE TEXT. THE USE OF SUCH CAN DRESS UP A PROGRAM BUT CAN CAUSE SOME DIFFICULTY WHEN A PRINTED LIST IS REQUIRED.

WHENEVER I WANTED A LLIST I WOULD HAVE TO GO THROUGH PROGRAMS AND PHYSICALLY CHANGE INVERSE TEXT TO NORMAL TEXT AND THE GRAPHIC SYMBOLS TO SOME STANDARD ASCII SYMBOL. I ALWAYS BELIEVE THAT THE COMPUTER SHOULD DO SUCH TEDIOUS WORK SO THIS UTILITY WAS CREATED.

THIS PROGRAM LOCATES IN THE HI RES SCREEN MEMORY AREA - HENCE THE FLASHES ON SCREEN WHILE IT PROCESSES - AND IS INTENDED TO BE BRUN WHEN THE PROGRAM TO BE PROCESSED HAS BEEN LOADED.

THE BASIC LOADER TAKES THE FORM OF OTHERS PREVIOUSLY PUBLISHED TO SIMPLIFY THE TASK OF LOADING THE DATA.

THE DATA VALUE 35 IN LINE NUMBER 70 DETERMINES THE SUBSTITUTION OF THE FIGURE # FOR ALL GRAPHIC SYMBOLS. THIS FIGURE CAN BE CHANGED FOR ANOTHER PROVIDING THE APPROPRIATE ASCII VALUE IS USED. (RANGE 33 TO 96 [DECIMAL]).

CHANGE GRAPHICS CONTINUED

NOTE : VARIATION OF THIS VALUE WILL REQUIRE THE CHECKSUM DATA ERROR CONTROL TO BE OVERIDDEN.

IT IS SUGGESTED THAT THIS ALTERATION SHOULD ONLY BE TRIED AFTER THE PROGRAM DATA HAS BEEN CONFIRMED.

BASIC LISTING FOR CHANGE GRAPHICS

```
010 FOR I = -21937 TO -21713
020 READA:POKE I,A
025 CHECKSUM = CHK+A:NEXT
027 :
030 DATA 62,195,50,193,121,33,102,170,34,194,121,205,201,1,33
032 DATA 17,171,205,167,40,195,25,26,58,156,120,51,51,183,121
034 DATA 193,250,84,59,202,58,3,229,245,33,155,120,52,126,254
036 DATA 79,32,7,54,0,62,13,205,186,58,241,225,254,13,32,7,62
038 DATA 0,50,155,120,62,13,183,250,154,170,195,186,58,203,119
040 DATA 40,58,230,63,245,197,213,229,111,38,0,62,18,205,186,58
042 DATA 6,4,229,209,183,237,90,16,252,229,193,33,148,59,9,62
044 DATA 255,205,186,58,6,5,126,35,205,186,58,16,249,62,255,205
046 DATA 186,58,62,30,205,186,58,225,209,193,241,201,197,71,62
048 DATA 18,205,186,58,120,230,15,229,203,39,79,62,30,145,79,175
050 DATA 71,33,175,2,9,126,71,35,126,79,120,205,186,58,205,186
052 DATA 58,205,186,58,121,205,186,58,205,186,58,205,186,58,62
054 DATA 30,205,186,58,225,193,201,13,84,65,78,68,89,32,80,82
056 DATA 73,78,84,69,82,32,80,65,84,67,72,32,76,79,65,68,69,68
058 DATA 13,0,0,0
060 :
075 IF CHECKSUM <> 25562 THEN PRINT"DATA ERROR":END
080 CLS:PRINT"SAVE TO DISK OR TAPE   (D/T)"
090 A1$=INKEY$:A$=INKEY$:IFA$<>"D"ANDA$<>"T"THEN90
100 SOUND30,1:IFA$="T"THEN180
110 IF PEEK( 16384 ) = 170,140
120 PRINT"NO DISK DRIVE TO USE"
130 GOTO 180
135 :
140 PRINT"INSERT DISK,CLOSE DOOR & PRESS  RETURN"
150 IFINKEY$<>CHR$(13),150
155 SOUND30,1
160 BSAVE"TANDY",AA4F,AB2F
170 END
175 :
180 FOR I = 29440 TO 29484
190 READ A: POKEI,A: NEXT
200 PRINT"INSERT CASSETTE,PRESS PLAY &   RECORD THEN RETURN"
210 IF INKEY$ <> CHR$(13),210
220 SOUND 30,1
230 POKE30862,0:POKE30863,115:X=USR(0)
240 END
245 :
250 DATA 33,79,170,34,164,120,33,47,171,34,249,120
260 DATA 33,38,115,14,241,243,205,172,52,251,33,233,122
270 DATA 34,164,120,205,248,26,35,34,249,120
280 DATA 195,25,26,34,84,65,78,68,89,34
```

CHANGE GRAPHICS CONTINUED 29/12

SOURCE CODE LISTING – – –

```
                   ;
                   ;   ### CHANGE GRAPHICS ###
                   ;TO CONVERT GRAPHIC CODE
                   ;TO ALLOW PRINT OUT BY
                   ;STANDARD PRINTER (TANDY)
                   ;V 2 JUNE 29 89   ORG 7200H
                   ;
A56B CD C9 01              CALL 01C9H
A56E 21 E9 7A              LD   HL,7AE9H
A571 22 A4 78              LD   (78A4H),HL
A574 23            INC4    INC  HL
A575 23            INC3    INC  HL
A576 23                    INC  HL
A577 23            INC     INC  HL
A578 7E            MP      LD   A,(HL)
A579 FE 22                 CP   34
A57B 28 12                 JR   Z,TEXT
A57D FE 00                 CP   0
A57F 20 F6                 JR   NZ,INC
A581 23            SZ      INC  HL
A582 B6                    OR   (HL)
A583 20 EF                 JR   NZ,INC4
A585 23                    INC  HL
A586 B6                    OR   (HL)
A587 20 EC                 JR   NZ,INC3
A589 22 F9 78              LD   (78F9H),HL
A58C C3 19 1A              JP   1A19H
A58F 23            TEXT    INC  HL
A590 7E                    LD   A,(HL)
A591 FE 22                 CP   34
A593 28 E2                 JR   Z,INC
A595 FE 00                 CP   0
A597 28 E8                 JR   Z,SZ
A599 FE 7F                 CP   7FH
A59B 38 F2                 JR   C,TEXT
A59D FE BF                 CP   0BFH
A59F 38 09                 JR   C,GRPH
A5A1 FE DF                 CP   0DFH
A5A3 38 09                 JR   C,INVA
A5A5 D6 C0                 SUB  0C0H
A5A7 77            AA      LD   (HL),A
A5A8 18 E5                 JR   TEXT
A5AA 3E 23         GRPH    LD   A,23H
A5AC 18 F9                 JR   AA
A5AE D6 80         INVA    SUB  80H
A5B0 18 F5                 JR   AA
BYTES FREE :- 22475 ERRORS : 00000
```

NOTE – – –

FOR YOUR CONVENIENCE BASIC LISTING IS PROVIDED ON PREVIOUS PAGE WHILE MACHINE CODE IS ABOVE LEFT AND SOURCE CODE LISTING IS ABOVE RIGHT.

29/13 COMPUTERS PLUS PRINTERS

FOR GENERAL USE THERE ARE TWO TYPES OF INPUT STANDARDS THAT PRINTERS AND COMPUTERS WORK UNDER. THESE ARE CENTRONICS PARALLEL AND SERIAL INPUT STANDARDS. MOST PRINTERS AND COMPUTERS HAVE ONE OF THE ABOVE STANDARDS BUILT IN WITH SOME HAVING BOTH. SOME PRINTERS AND SOME COMPUTERS LIKE THE VZ NEED A PRINTER INTERFACE TO WORK.

CENTRONICS PARALLEL . . .

THE VZ PRINTER INTERFACE CONVERTS VZ'S OUTPUT TO CENTRONICS PARALLEL AND WILL WORK WITH ANY CENTRONICS PARALLEL COMPATIBLE PRINTER OR PLOTTER, BLACK & WHITE OR COLOUR. THE VZ CANNOT PRINTOUT WITHOUT BEING CONNECTED TO A PRINTER VIA A PRINTER INTERFACE AND WILL NOT WORK WITH A PRINTER HAVING ONLY SERIAL INPUT.

SERIAL INPUT/OUTPUT . . .

SERIAL INPUT PRINTERS WILL ONLY WORK WITH COMPUTERS HAVING SERIAL OUTPUT PRINTER PORTS, BUT WITH SOME EXEPTIONS. THE COMMODORE 64 IS ONE AS IT HAS A NON STANDARD SERIAL OUTPUT AND HAS TO NORMALLY BE CONNECTED TO A MATCHING COMMODORE PRINTER. THERE ARE WAYS AROUND THIS PROBLEM AS CENTRONICS PARALLEL INTERFACE CARTRIDGES CAN BE BOUGHT TO WORK WITH CENTRONIC PARALLEL INPUT PRINTERS.

USING VZ PRINTER INTERFACE . . .

MOST CENTRONIC PARALLEL PRINTERS WILL NOT PRINT OUT VZ INVERSE OR GRAPHIC CHARACTERS OR COPY A LO/HI-RES GRAPHIC SCREEN. THE ONE EXEPTION THAT I KNOW OF IS THE GP100 WHICH IS NO LONGER AVAILABLE EXEPT SECOND HAND AND HAS VERY LIMITED FUNCTIONS.

PRINTER PATCHES & MODIFIED ROMS . . .

THE FIRST PRINTER PATCH WAS WRITTEN BY JAMIE PERRY AND IT PRINTED OUT ALL INVERSE AND GRAPHIC CHARACTERS. IT WAS SLOW AS IT PRINTED ONE CHARACTER AT A TIME, BUT YOU NO LONGER HAD TO MODIFY TEXT BEFORE PRINTING WHICH WAS A BIG PLUS.

LARRY TAYLOR WROTE A VERY VERSATILE PATCH WHICH WAS MUCH FASTER AND HAD MANY MORE FUNCTIONS LIKE VERY VERSATILE LO/HI-RES SCREEN DUMPS. I USE IT TO PRODUCE BOTH HI & LO-RES SCREEN DUMPS FOR THE JOURNAL. IT COULD STILL BE AVAILABLE FROM JOHN D'ALTON AND IS WELL WORTH THE MONEY.

SOME MODIFIED BASIC ROMS WERE MARKETED BY LASERLINK. IT HAD ALL THE EXTENDED BASIC COMMANDS ACTIVATED AS WELL AS MODIFIED LLIST AND LLPRINT ROUTINES WHICH PRINTED OUT ALL INVERSE AND GRAPHIC CHARACTERS AND IS THE BEST ALTERNATIVE AS NO PATCHES NEED BE LOADED AND THE ROM'S FUNCTIONS ARE AVAILABLE AT POWER UP.

DMP & DAISY WHEEL PRINTERS . . .

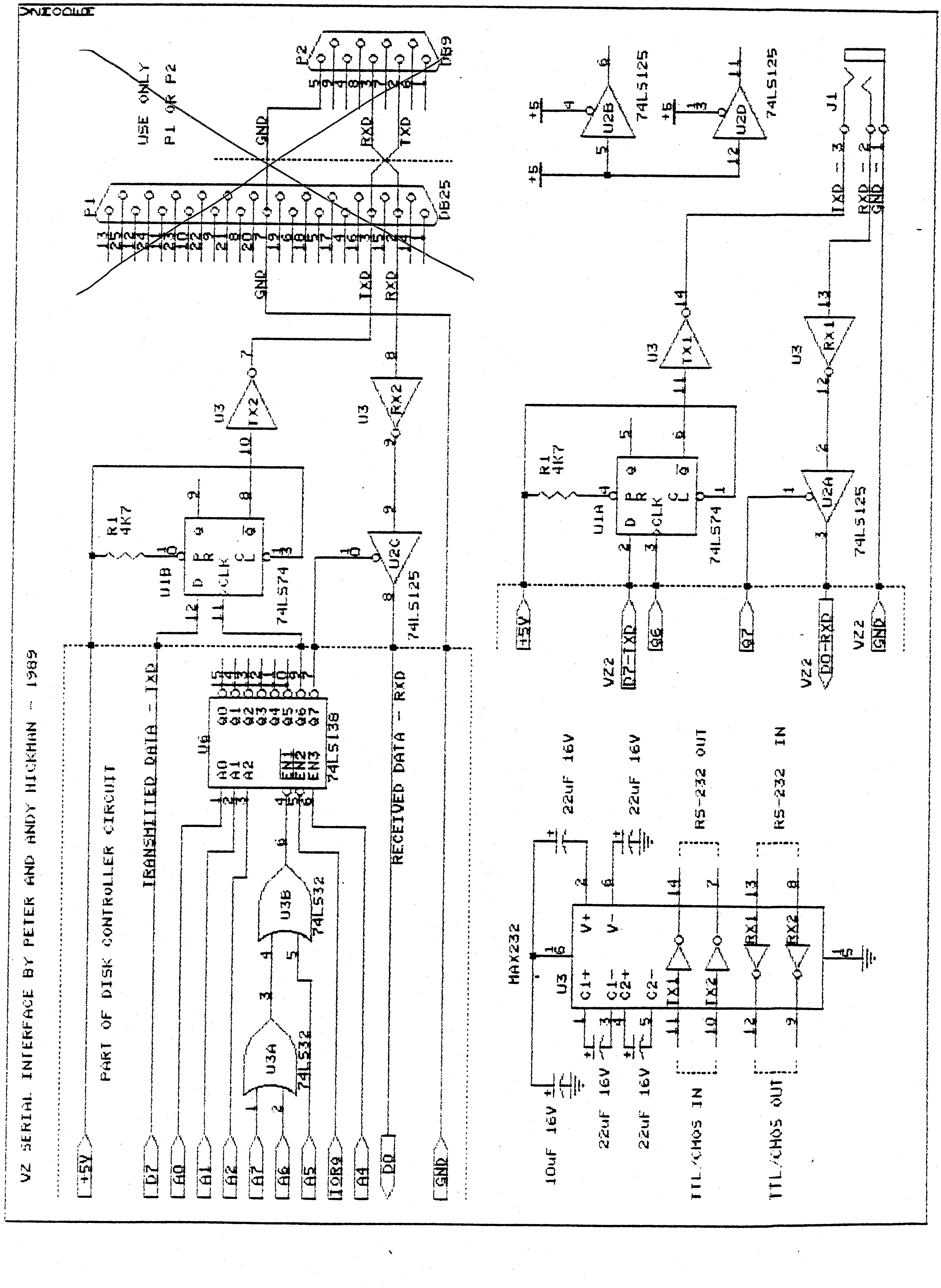
DMP (DOT MATRIX PRINTERS) ARE MORE COMMON AND THEY USE A MATRIX OF PINS FROM 8 TO 24 TO FORM LETTERS, GRAPHIC OR INVERSE CHARACTERS AND THE MORE PINS THE HIGHER QUALITY PRINTOUT. DAISY WHEEL PRINTERS ON THE OTHER HAND USE FORMED LETTERS ON A PETAL LIKE IN A TYPWRITER AND PRODUCE HIGH LETTER QUALITY PRINTOUT BUT CANNOT BE USED FOR GRAPHICS OR INVERSE TEXT PRINTING ON THE VZ.

COLOUR PRINTERS OR PLOTTERS

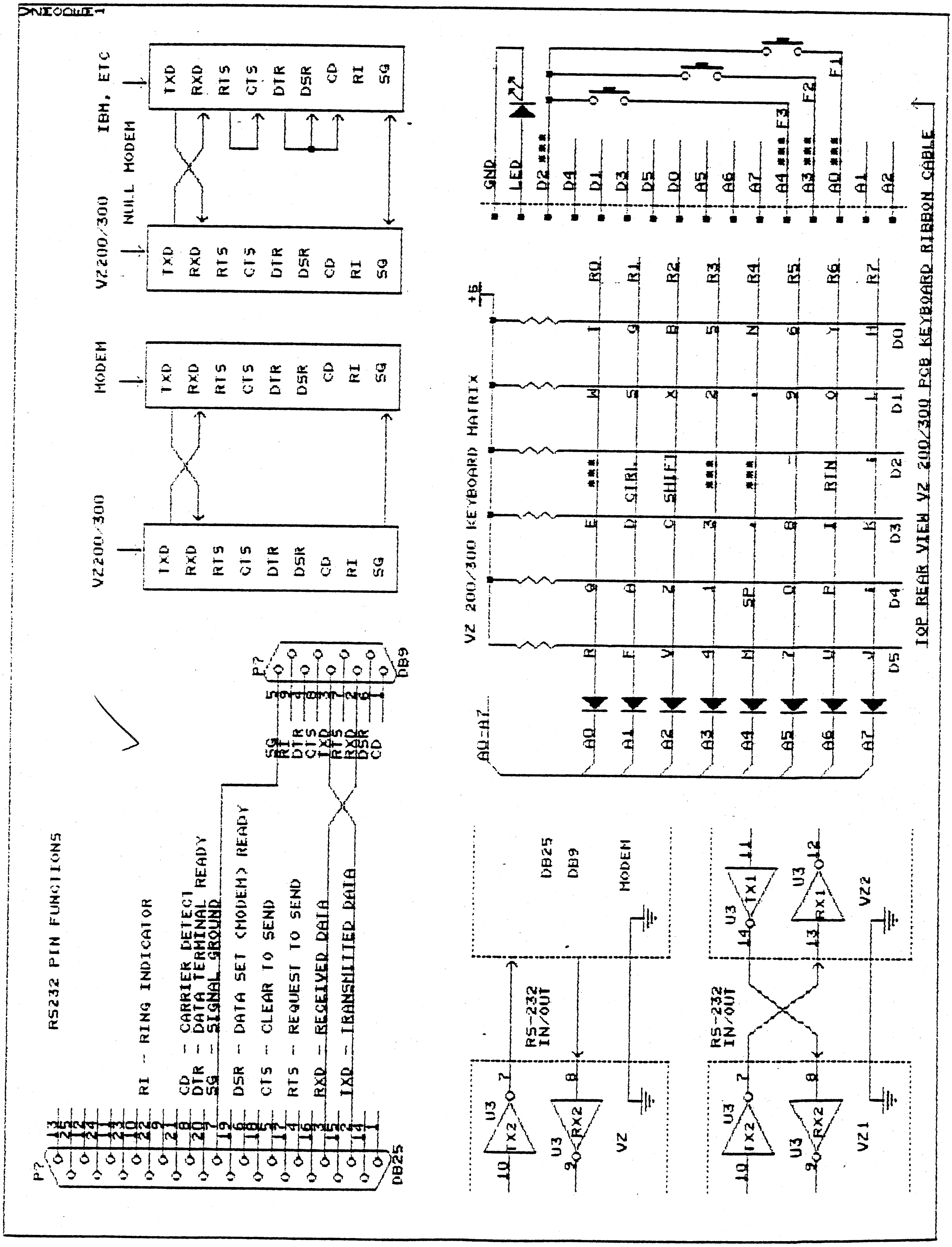
THESE CAN BE USED WITH THE VZ, BUT THE USER MUST ENABLE THE COLOUR OPTIONS HIM/HERSELF AND TO THE BEST OF MY KNOWLEDGE THERE ARE NO PATCHES AVAILABLE WHICH WILL PRINTOUT HI & LO-RES SCREENS IN APPROPRIATE COLOURS. THE ONE PATCH THAT I KNOW OF IS FOR THE PRINTER PLOTTER WHICH WILL PRINT OUT HI-RES SCREENS IN FOUR COLOURS. IT MAY OR MAY NOT BE POSSIBLE TO CONVERT THIS FOR COLOUR DMP.

VZ 200/300 SERIAL INTERFACE

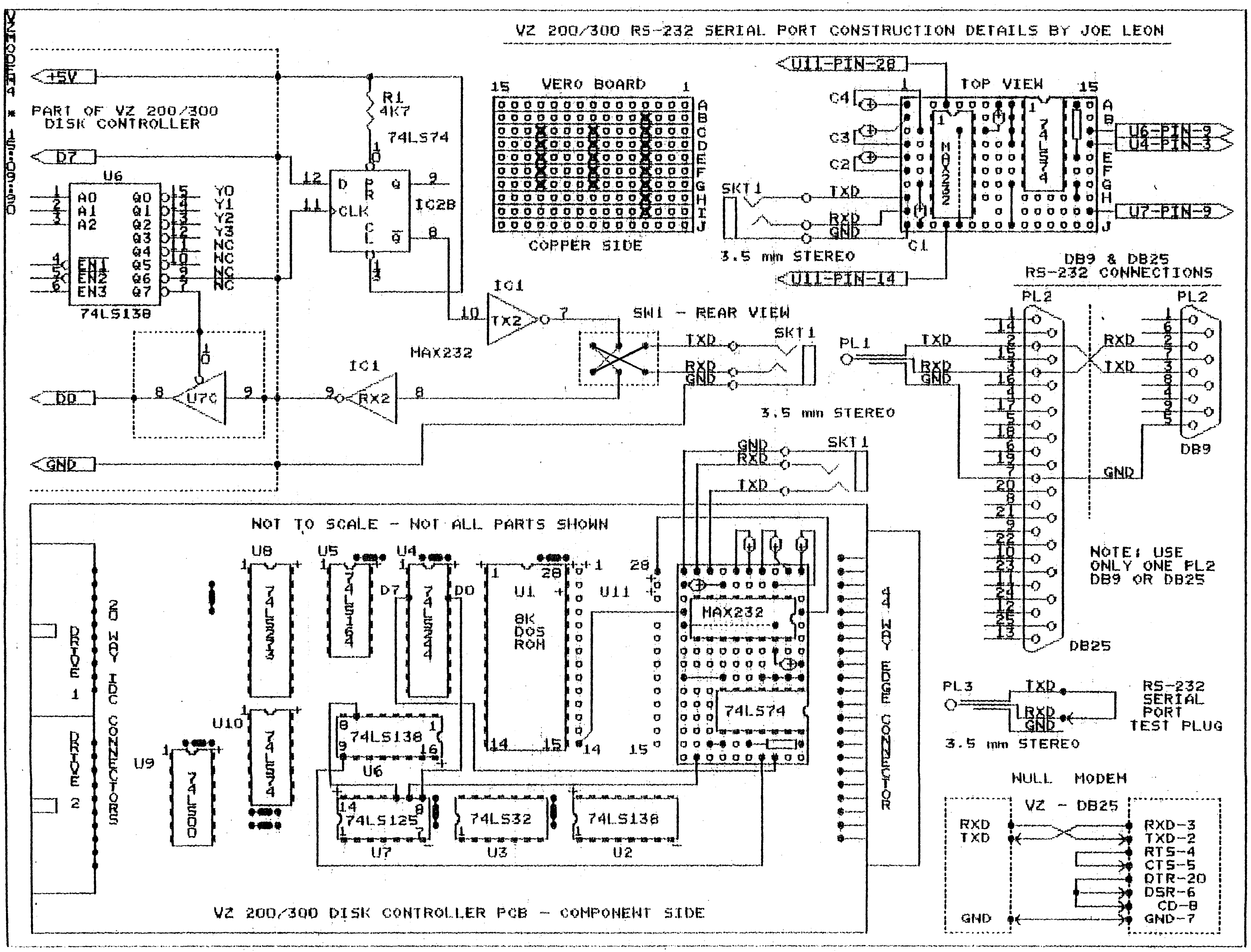
BY PETER AND ANDY HICKMAN



VZ 200/300 SERIAL INTERFACE CONTINUED . . .



UPDATE ON RS-232 PORT - SIMPLER CONSTRUCTION



VZ SERIAL INTERFACE CONTINUED 29/16

LIKE MANY DSE VZ TERMINAL USERS PETER WAS FRUSTRATED BY ITS SEVERE LIMITATIONS SO IN CORROBORATION WITH HIS BROTHER ANDY THEY HAVE REDESIGNED BOTH THE SOFTWARE AND HARDWARE. AS DSE TERMINALS ARE PRACTICALLY IMPOSSIBLE TO BUY THIS PROJECT REPRESENTS A MUCH CHEAPER AND MORE FUNCTIONAL ALTERNATIVE.

NOTE: THE SOFTWARE FOR THIS SERIAL INTERFACE IS DISK BASED ONLY.

THE PARTS COUNT IS QUITE SMALL, JUST THREE CHIPS, 5 CAPACITORS AND ONE OR TWO CONNECTOR PLUGS. IT IS POSSIBLE TO BUILD THE CIRCUIT INSIDE THE DISK CONTROLLER BY PIGGYBACKING THE 74LS74 AND 74LS125 ON EXISTING CHIPS AND PLACING MAX232 CHIP NEAR THE EDGE CONNECTOR.

A 3.5MM STEREO SOCKET COULD BE USED AS ONLY THREE WIRES ARE INVOLVED, TXD (TRANSMIT DATA), RXD (RECEIVE DATA) AND GROUND. IT WOULD MAKE FOR A NICE COMPACT UNIT WITH NO BOXES TO PLUG IN. ALTERNATIVELY A SMALL BOX COULD BE USED BUT WOULD REQUIRE SIX WIRES, +5V, GND, Q6, Q7 (U6-74LS138), DATA LINE 0 & 7. IT CAN ALSO BE BUILT INTO VZ 200/300 BUT WOULD REQUIRE DUPLICATING DECODING CIRCUITRY.

THE 74LS138 (U6) DECODER IN THE DISKCONTROLLER USES ONLY FIRST FOUR OUTPUTS SO FOUR ARE SPARE AND THE LAST TWO OUTPUTS ARE USED FOR CONTROLLING THE SERIAL INTERFACE WHICH SAVES TWO EXTRA CHIPS. THE 74LS74 'D' TYPE FLIP FLOP PASSES DATA TO A SECTION OF A MAX232 (U3-T2) CHIP FOR TRANSMITTING TO A MODEM OR ANOTHER COMPUTER.

FOR RECEIVING A SECTION OF MAX232 (U3-R2) IS USED WHICH PASSES DATA VIA A 74LS125 (U2C) TRISTATE BUFFER TO THE VZ. DATA LINE ZERO (0) IS USED FOR RECEIVING DATA WHILE DATA LINE SEVEN (7) IS USED FOR TRANSMITTING DATA.

THE MAX232 CHIP HAS TWO TRANSMITTERS AND TWO RECEIVERS AND ONLY ONE OF EACH IS NEEDED FOR THE SERIAL INTERFACE. ONLY ONE OF TWO FLIP FLOPS (74LS74) AND ONE OF FOUR TRISTATE BUFFERS (74LS125) ARE USED. THAT MEANS A SECOND SERIAL INTERFACE CAN BE BUILT FOR PRACTICALLY NO ADDITIONAL EXPENSE. NORMALLY A DB25 PIN OR DB9 PIN PLUG IS USED FOR CONNECTING TO A MODEM OR ANOTHER COMPUTER.

THE SECOND SERIAL INTERFACE IS SHOWN BELOW THE FIRST ONE AND SHARES COMMON SIGNALS LIKE +5V, GND, Q6 & Q7. D0, D7 AND GND WOULD COME FROM SECOND VZ VIA A 3.MM SOCKET WHICH IS SMALL AND EASY TO FIT. THE CONNECTION TO A MODEM OR ANOTHER COMPUTER WOULD NORMALLY BE VIA A DB25 OR DB9 CONNECTOR AND CONNECTIONS TO BOTH ARE SHOWN BUT ONLY ONE IS USED DEPENDING ON CONNECTOR YOU PLUG INTO.

THE MAX232 BLOCK DIAGRAM SHOWS THE FUNCTIONAL OPERATION OF THE CHIP. FOR COMPACTNESS TANTALUM CAPACITORS CAN BE USED EXSPECIALLY IF BUILDING UNIT INSIDE DISK CONTROLLER. A SMALL PIECE OF VEROBOARD CAN BE USED TO MOUNT THE MAX232 CHIP AND CAPACITORS AND OR OTHER TWO CHIPS AS WELL.

THE Q6 & Q7 SIGNALS ARE TAKEN DIRECT FROM THE 74LS138 DECODER IN THE DISK CONTROLLER. ALL UNUSED INPUTS ON 74LS74 AND 74LS125 MUST BE TIED HIGH OR UNWANTED OSCILLATION COULD OCCUR. THERE ARE THREE CONSTRUCTION OPTIONS. INSIDE DISK CONTROLLER, EXTERNAL BOX OR INSIDE THE VZ AND I LEAVE IT TO YOU ON WHICH OPTION YOU ADOPT.

NOTE: YOU'LL NEED ANOTHER COMPUTER OR VZ WITH A RS232 SERIAL INTERFACE TO TEST UNIT OUT.

29/17 VZ SERIAL INTERFACE CONTINUED

BEFORE PROCEEDING TO TEST UNIT THERE ARE SEVERAL THINGS THAT NEED EXPLAINING. WE'LL START WITH DB25 AND DB9. YOU'LL NOTE THAT ON DB25 TXD IS CONNECTED TO PIN 2 WHILE RXD IS CONNECTED TO PIN 3. THE REVERSE IS TRUE FOR DB9. SOME EQUIPMENT COULD COME WITH DB25 OR DB9 CONNECTORS AND MY IBM PC COMPATIBLE HAS TWO SERIAL PORTS HAVING BOTH CONNECTORS.

AS FAR AS THE VZ IS CONCERNED ONLY THREE SIGNALS ARE USED WHICH ARE TXD, RXD AND GND. CONNECTING TO A MODEM IS STRAIGHT-FORWARD. JUST USE A DB25 OR DB9 CONNECTOR AND WIRE UP THE THREE SIGNALS ACCORDING TO THE CONVENTION. ON PAGE 15 BOTTOM LEFT YOU'LL NOTE TWO DIAGRAMS ON HOW TO CONNECT VZ TO A MODEM OR ANOTHER VZ.

THE TWO TOP RIGHT DIAGRAMS DEPICT FIRST AGAIN CONNECTING COMPUTER TO A MODEM. THE NULL MODEM DIAGRAM IS HOW THE VZ AND ANOTHER COMPUTER LIKE THE IBM PC SHOULD BE CONNECTED. THE OTHER SIGNALS ARE SHOWN FOR CLARITY.

NOTE: THE MATERIAL FOR THIS PROJECT CAME FROM PETER AND ANDY HICKMAN WHO DID AN EXELLENT JOB IN DESIGNING BOTH THE SOFTWARE AND HARDWARE. I WOULD LIKE TO THANK LOCAL MEMBERS FOR THEIR HELP AND RESEARCH WITH ABOVE PROJECT. ED.

FUNCTION KEYS . . .

IN THE SOFTWARE PETER HAS MADE PROVISION FOR EXTRA FUNCTION KEYS. THEY CAN BE USED WITH ABOVE SOFTWARE OR YOU COULD WRITE YOUR OWN WHICH CAN GIVE YOU UP TO 12 EXTRA FUNCTIONS, FOUR PER KEY LIKE SOME OF THE OTHER KEYS ON THE VZ. ALL THE DISK WORDS COULD BE ACTIVATED JUST BY A KEY PRESS OR TWO.

AS YOU'LL NOTE BY THE KEYBOARD MATRIX THERE ARE THREE PHYSICAL LOCATIONS EACH MARKED BY THREE ASTERICKS WHERE KEYS HAVE NOT BEEN CONNECTED. IT IS FAIRLY SIMPLE TO CONNECT THREE FUNCTION KEYS IN THOSE LOCATIONS. THE BOTTOM RIGHT DIAGRAM SHOWS WHERE THE CONNECTIONS ARE MADE.

I WOULD SUGGEST ROUND PUSHBUTTON KEYS WITH ABOUT 3/8" TOPS AS SOLD BY VARIOUS ELECTRONIC SHOPS. THE KEYS COULD BE MOUNTED ON A NARROW PIECE OF VEROBOARD AND IN THE CASE OF VZ300 PLACED JUST ABOVE THE KEYBOARD ON THE FLAT AND MOUNTED FROM UNDERNEATH. USING ROUND KEYS MAKES IT EASIER TO DRILL HOLES TO FIT THAN WOULD BE THE CASE FOR SQUARE TOPPED KEYS.

CONCLUSION . . .

WHEN COMPLETED, THIS VZ 200/300 RS-232 SERIAL INTERFACE WILL ALLOW YOU TO CONNECT IT TO A MODEM, ANOTHER COMPUTER AND TRANSMIT, RECEIVE AT 300 BAUD. DATA CAN BE PRELOADED FROM DISK BEFORE TRANSMITTING TO SAVE LOG ON TIME. THE SOFTWARE IS VERY VERSATILE AND PETER HAS GONE TO GREAT LENGHTS TO PROVIDE AS MANY FUNCTIONS AS POSSIBLE.

IT IS REFRESHING TO SEE NEW AND USEFUL PROJECTS MAKING AN APPEARANCE FOR THE VZ CONSIDERING THE PRESENT STATE OF THE VZ. WHILEVER THERE ARE PERSONS LIKE PETER AND ANDY HICKMAN AROUND THE VZ WILL SURVIVE. KEEP IT UP FELLAS.

FOR MORE INFORMATION ON ABOVE PROJECT OR SOFTWARE CONTACT PETER HICKMAN. FOR ADDRESS SEE HIS AD ON PAGE 18.

LOOK !!!! --- PROGRAMS FOR SALE --- ALL NEW !!!!

<1> V Z D I S A S S E M B L E R

WHAT, ANOTHER DISASSEMBLER? BUT, YOU HAVE ALREADY GOT ONE? THIS ONE IS DIFFERENT!

THIS PROGRAM IS ENTIRELY WRITTEN IN MACHINE CODE. IT ACTUALLY RUNS ABOUT 40 TIMES FASTER THAN D.S.E.'S DISASSEMBLER (OR ANY ONE ELSE'S). IT WILL DISASSEMBLE ANY PROGRAM THAT YOU CAN BLOAD INTO MEMORY. IT WORKS WITH ANY VZ CONFIGURATION. IT DISASSEMBLES EVEN THE 88 EXTRA Z80 OPCODES THAT ZILOG DOESN'T ADMIT TO.

PRICE? ONLY $25.00 – TAPE AND DISK VERIONS AVAILABLE.

PRICE INCLUDES HARDCOPY MANUAL. INTERESTED? YOU MAY PURCHASE THIS PROGRAM FROM PETER HICKMAN, FOR ADDRESS SEE BELOW.

BRAND NEW – VZ SERIAL INTERFACE PROGRAM – BRAND NEW

<2> V Z M O D E M S O F T W A R E

DID YOU WANT TO TALK TO OTHER COMPUTERS VIA A MODEM? DID YOU BUY THE DSE TERMINAL EPROM, ONLY TO DISCOVER THAT IT ONLY WORKS WITH TAPE. IT ONLY ALLOWS YOU TO PRINT FILES, NOT SAVE THEM OR SEND THEM!

YOUR PROBLEMS ARE SOLVED! THE HICKMAN BROTHERS, PETER AND ANDREW, HAVE A BRAND NEW PROJECT WHICH WILL ALLOW YOU TO SEND, RECEIVE & SAVE FILES VIA A MODEM. IT WORKS WITH DISK!

SALE PRICE $25.00 ONLY

INCLUDED ARE INSTRUCTIONS FOR THE HARDWARE MODIFICATIONS.

A SMALL MODIFICATION IS NEEDED TO YOUR DISK CONTROLLER. YOUR USER GROUP MAY HELP YOU MODIFY YOUR COMPUTER TO USE THIS EXCITING NEW SOFTWARE! IF YOU HAVE THE FUNCTION KEYS MOD AS WELL, THEN YOU WILL BE ABLE TO SEND EXTRA ASCII CHARACTERS SUCH AS:-

{|}~_

THE MANUAL IS SUPPLIED ON DISK FOR YOU TO PRINT OUT WITH YOUR DISK VERSION OF E & F WORDPROCESSOR. IF YOU DO NOT OWN AN E & F WORDPROCESSOR PROGRAM, PLEASE ENCLOSE ANOTHER $5.00 (TOTAL $30.00) FOR PHOTOCOPYING AND POSTAGE OF THE MANUAL.

FOR PURCHASE OR MORE INFORMATION CONTACT:-
PETER HICKMAN P.O. BOX 8, WERRINGTON N.S.W. 2760.

VZ USER GROUPS/PUBLICATIONS

CONTRIBUTIONS TO THE HUNTER VALLEY VZ JOURNAL :-

IF YOU ARE THINKING OF CONTRIBUTING TO THE JOURNAL THE PREFERED FORMAT IS BASIC LISTINGS, WORD_PROCESSOR OR SOURCE CODE FILES ON TAPE OR DISK. FILES FROM THE FOLLOWING WORD PROCESSORS CAN BE ACCEPTED :-

E & F TAPE OR DISK PATCH 3.1-3.3, WORDPRO CARTRIDGE, WORDPRO PATCH AND ALL QUICKWRITE WORD PROCESSOR FILES.

WANTED TO BUY ------------------

64K RAM PACKS - CONTACT JOE LEON
22 DRURY STREET WALLSEND NSW 2287 --- PHONE (049) 51 2756

CLUB MEETINGS * ALL WELCOME *

FIRST FRIDAY OF MONTH - NO MEETING IN JANUARY 1990

VENUE - JESMOND NEIGHBOURHOOD CENTRE MORDUE PARADE JESMOND
(REAR STOCKLAND MALL - BIG W)

AUGUST 3 - COMPUTER SHOW WORKSHOP I
SEPTEMBER 7 - COMPUTER SHOW WORKSHOP II
MACHINE CODE & ASSEMBLY CONTINUED (MONTHLY)

FUTURE DEMONSTRATIONS -

EPROM PROGRAMMER & ERASER, AUCTION NIGHT - USING THE VZ, RITTY, ETC.
IF YOU HAVE ANY IDEAS FOR A DEMONSTRATION OR A SUBJECT THEN PLEASE LET YOUR COMMITTEE KNOW.

CLUB COMMITTEE & SUBSCRIPTIONS -

PRESIDENT --------- ROSS WOODS --- (049) 71 2843
SECRETARY/EDITOR -- JOE LEON ----- (049) 51 2756
TREASURER --------- GARY BULLEY -- (049) 54 7561
COMMITTEE MEMBERS - COLIN BRIDGE - PETER JONES

SUBSCRIPTION TO - AUST. - 6 MONTHS $11.00 - 12 MONTHS $21.00
H.V.VZ.JOURNAL - N. Z. - 6 MONTHS $13.00 - 12 MONTHS $26.00

HUNTER VALLEY VZ USERS' GROUP - PO BOX 161 JESMOND 2299
NEW SOUTH WALES AUSTRALIA

VZ USER GROUPS & PUBLICATIONS --

VZ DOWN UNDER - VZ MAGAZINE - 6 ISSUES - $18.00 PER ANUM
HARRY HUGGINS 12 THOMAS SREET MITCHAM VICTORIA 3132

WAVZ - WESTERN AUSTRALIA VZ USER GROUP
GRAEME BYWATER P O BOX 388 MORLEY W A 6062

BRISBANE VZ USERS WORKSHOP - C/O 63 TINGALPA ST. WYNUM WEST 4178
SOFTWARE FOR SALE - DISK MENU

SAPPHIRE PRODUCTIONS - VZ DISK MAGAZINE - $20.00 PER ANUM
CONTACT JASON OAKLEY PO BOX 600 TAREE NSW 2430

NOTE :- WHEN WRITING TO ANY ABOVE OR H.V.VZ. USERS' GROUP FOR INFORMATION PLEASE ENCLOSE A S.S.A.E. OR NZ 2 INT. REPLY COUPONS.

FOR SALE E & F W.P.PATCH 3.3 29/20

PATCH 3.3 WRITTEN BY DAVE MITCHELL WILL CONVERT YOUR E & F TAPE WORD PROCESSOR FOR FULL DISK USE WHILE RETAINING ALL ORIGINAL FUNCTIONS. BELOW ARE ADDED DISK COMMANDS & FUNCTIONS :-

LOAD, SAVE, ERASE, RENAME, DIRECTORY, INITIALIZE, UPDATE, DRIVE 1 & 2, SHIFTLOCK & IMBEDDED PRINTER CONTROL CODES PLUS CTRL+P WHICH BYPASSES PRINT MENU AND PRINTS TO SCREEN OR PRINTER. A ROUTINE IS ALSO PROVIDED TO CONVERT YOUR BASIC PROGRAM OR SOURCE CODE FILES INTO WORD PROCESSOR FILES.

PATCH 3.3 HAS PROVISION FOR IMBEDDING PRINTER CONTROL CODES IN TEXT AND FAST SAVING AND LOADING OF TEXT DATA TO AND FROM DISK USING BLOCK SAVE/LOAD TECHNIQUES. PRINTER CONTROL CODES CAN BE SAVED TO TAPE OR DISK.

BSTWP.F - THIS UTILITY PROVIDED WITH PATCH 3.3 WILL CONVERT BASIC PROGRAMS AND ED/ASS. SOURCE CODE FILES INTO WORD PROCESSOR FILES.

SYSTEM REQUIREMENTS - VZ 300 + 16K RAM PACK - VZ 200 + 26K

PATCH 3.3 IS COPYRIGHT TO AND ONLY AVAILABLE FROM :-
HUNTER VALLEY VZ USERS' GROUP P.O.BOX 161 JESMOND 2299
N.S.W. AUSTRALIA - PHONE JOE LEON (049) 51 2756

PRICE - AUS/NZ AU$20.00 - UPDATE - AUS-$10.00 - NZ-AU$11.00.
UPDATING AVAILABLE ONLY TO PREVIOUS PURCHASERS OF PATCHES.

FOR MORE INFORMATION WRITE TO H.V.VZ.U.G. ENCLOSING A SSAE.

EXTENDED DOS V1.3 - $15.00

UPDATED VERSION WITH EXTRA COMMANDS ADDED :-

OLD COMMANDS - MERGE, DIRA, LDIRA, DIRB, LDIRB, OLD, OLD., DEC, HEX, STATUSA AND LSTATUSA. STATUSA AND LSTATUSA ALSO WORKS WITH VERSION 1.0 DOS.

NEW COMMANDS :-

- MENU - LOADS AND RUNS BINARY OR TEXT MENU PROGRAM FROM DISK.
- CODE - SIMPLIFIES USING PRINTER CONTROL CODES DIRECTLY OR FROM WITHIN A PROGRAM.
- LTAB - IS FOR SETTING OF LEFT MARGIN.
- MOVE - MOVES BASIC FILE FROM DISK TO CHOSEN MEMORY ADDRESS.
- UPD - ERASES OLD FILE AND SAVES WITH SAME FILE NAME.

MENU/FILE COPIER - $15.00

THIS UTILITY WILL READ YOUR DISK DIRECTORY AND PRESENT YOU WITH SEVERAL OPTIONS. USING THE CURSOR YOU CAN RUN/BRUN ANY PROGRAM OR SELECT FILE COPY, REN, ERASE, DRIVE 1 OR 2, ETC. BESIDES COPYING TEXT AND BINARY FILES ALL OTHER FILES CAN BE COPIED AS WELL EXEPT FOR DATA FILES.

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